

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-30. (Canceled)

31. (Previously Presented): A method for inhibiting an immune response comprising administering to a human in need thereof a purified compound selected from the group consisting of an antibody, an alpha (2) macroglobulin fragment, and an alpha (2) macroglobulin receptor fragment, which compound interferes with the interaction of a heat shock protein with the alpha (2) macroglobulin receptor, and is in an amount effective to inhibit the immune response of said human.

32-70. (Canceled)

71. (Previously Presented): A method for inhibiting an immune response comprising administering to a human in need thereof a purified compound selected from the group consisting of an antibody and an alpha (2) macroglobulin fragment, which compound binds to the alpha (2) macroglobulin receptor, in an amount effective to inhibit the immune response of said human.

72-75. (Canceled)

76. (Previously Presented): The method of claim 31 or 71 wherein the compound is an antagonist which decreases alpha (2) macroglobulin receptor activity.

77. (Previously Presented): The method of claim 31 wherein the compound is an antibody specific for alpha (2) macroglobulin.

78. (Previously Presented): The method of claim 31 or 71 wherein the compound is an antibody specific for the alpha (2) macroglobulin receptor.

79. (Previously Presented): The method of claim 31 wherein the compound is an antibody specific for the heat shock protein.

80. (Previously Presented): The method of claim 31, wherein the heat shock protein is gp96.

81. (Previously Presented): The method of claim 31 wherein the heat shock protein is Hsp70.

82. (Previously Presented): The method of claim 31 wherein the heat shock protein is Hsp90.

83. (Canceled)

84. (Previously presented): The method of claim 31 or 71, wherein the compound is a peptide.

85. (Previously Presented): The method of claim 31 or 71, wherein the immune response is to an autoimmune antigen.

86 - 90. (Canceled)

91. (Previously presented): The method of claim 85, wherein the autoimmune antigen is of: insulin dependent diabetes mellitus, multiple sclerosis, systemic lupus erythematosus, Sjogren's syndrome, scleroderma, polymyositis, chronic active hepatitis, mixed connective tissue disease, primary biliary cirrhosis, pernicious anemia, autoimmune thyroiditis, idiopathic Addison's disease, vitiligo, gluten-sensitive enteropathy, Graves' disease, myasthenia gravis, autoimmune neutropenia, idiopathic thrombocytopenia purpura, rheumatoid arthritis, cirrhosis, pemphigus vulgaris, autoimmune infertility, Goodpasture's disease, bullous pemphigoid, discoid lupus, ulcerative colitis, or dense deposit disease.

92. (Previously Presented): The method of claim 31 or 71 wherein the compound is selected from the group consisting of a polyclonal antibody, monoclonal antibody, humanized antibody, chimeric antibody, single chain antibody, Fab fragment, F(ab')₂ fragment, fragment produced by a Fab expression library, and anti-idiotypic antibody.

93. (Previously Presented): The method of claim 31 or 71 wherein the compound is selected from the group consisting of an epitope-binding fragment of a polyclonal antibody, monoclonal antibody, humanized antibody, chimeric antibody, single chain antibody, Fab fragment, F(ab')₂ fragment, fragment produced by a Fab expression library, and anti-idiotypic antibody.

94. (Currently Amended) The method of claim 31 or 71, wherein the compound is an alpha (2) macroglobulin α 2M fragment comprising at least five consecutive amino acids of alpha (2) macroglobulin α 2M (SEQ ID NO: 4). ~~(SEQ ID NO: 4).~~

95. (Previously Presented) The method of claim 31 or 71, wherein the compound is a peptide consisting of amino acids selected from the group consisting of: 1299-1451 (SEQ ID NO:8), 1314-1451 (SEQ ID NO:9), 1366-1392 (SEQ ID NO:10), 1300-1425 (SEQ ID NO:11), 1300-1400 (SEQ ID NO:12), 1300-1380 (SEQ ID NO:13), 1325-1425 (SEQ ID NO:14), 1325-1400 (SEQ ID NO:15), 1325-1380 (SEQ ID NO:16), 1350-1425 (SEQ ID NO:17), 1350-1400 (SEQ ID NO:18), and 1350-1380 (SEQ ID NO:19).

96. (Currently Amended) The method of claim 31, wherein the compound is an alpha (2) macroglobulin α 2M-receptor fragment comprising at least five consecutive amino acids of the alpha (2) macroglobulin α 2M-receptor ~~(SEQ ID NO: 7)~~ (SEQ ID NO:7).

97. (Currently Amended) The method of claim 31, wherein the compound is an alpha (2) macroglobulin α 2M-receptor fragment ~~comprises comprising~~ at least one complement repeat selected from the group consisting of CR3 to CR10.

98. (Currently Amended) The method of claim 31, wherein the compound is an alpha (2) macroglobulin α 2M-receptor fragment ~~comprises comprising~~ a cluster of complement repeats.

99. (Currently Amended) The method of claim 98, wherein the cluster of complement repeats comprises the CI-CII complement repeat cluster of the alpha (2) macroglobulin α 2M-receptor.

100. (Currently Amended) The method of claim 31, wherein the compound is an alpha (2) macroglobulin α 2M-receptor fragment ~~comprises comprising~~ the p80 fragment of

the alpha (2) macroglobulin ~~α2M~~-receptor.

101. (Previously Presented) The method of claim 31, wherein the compound is a peptide consisting of amino acids selected from the group consisting of: SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, and SEQ ID NO:57.

102. (Previously Presented) The method of claim 31, wherein the compound is an antibody.

103. (Previously Presented) The method of claim 31, wherein the compound is an alpha (2) macroglobulin fragment.

104. (Previously Presented) The method of claim 31, wherein the compound is an alpha (2) macroglobulin receptor fragment.

105. (Previously Presented) The method of claim 71, wherein the compound is an antibody.

106. (Previously Presented) The method of claim 71, wherein the compound is an alpha (2) macroglobulin fragment.

107. (Previously Presented) The method of claim 31, wherein the heat shock protein is calreticulin.

108. (Previously Presented): The method of any one of claims 80, 81, 82 or 107 wherein the compound is an antibody specific for the alpha (2) macroglobulin receptor.

109. (Previously Presented): The method of any one of claims 80, 81, 82 or 107 wherein the compound is an antibody specific for the heat shock protein.

110. (Previously Presented): The method of claim 31 or 71, wherein the immune response is an autoimmune response directed at tissues or organs transplanted in said human.

111. (Currently Amended) The method of claim 103 wherein the compound is an alpha (2) macroglobulin ~~α2M~~ fragment comprising at least ten consecutive amino acids of alpha (2) macroglobulin ~~α2M~~ (SEQ ID NO:4).

112. (Currently Amended) The method of claim ~~106, 31, 71, or 103~~ wherein the compound is an alpha (2) macroglobulin α 2M-fragment comprising at least ten consecutive amino acids of alpha (2) macroglobulin α 2M-(SEQ ID NO:4).

113. (Canceled)

114. (Canceled)

115. (Currently Amended) The method of claim 31 ~~or 104~~ wherein the compound is an alpha (2) macroglobulin α 2M-receptor fragment comprising at least ten consecutive amino acids of the alpha (2) macroglobulin α 2M-receptor (SEQ ID NO:7).

116-120. (Canceled)

121. (Previously Presented) The method of claim 80, 81, or 107 wherein the compound is an antibody.